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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,043

06/30/2006

Patrick Pichat

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EXAMINER

EIDE, HEIDI MARIE

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

03/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,043	Applicant(s) PICHAT ET AL.	
	Examiner HEIDI M. EIDE	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-29 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-13, 17-21 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 10, 2008 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 10-13, 20, 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sierro et al. 6,837,709 (Sierro) in view of Malmin 4,276,880. Sierro teaches a nozzle piece 2 for a dental powder jet apparatus adapted for an exchangeable assembly on a hand piece (col. 2, ll. 60-32) for discharging a mixture of air and a dental powder (col. 3, ll. 6-9) suitable for cleaning teeth in the area of a gum pocket as well as a discharge nozzle 7 for a fluid (col. 3, ll. 15-16). The front partial length is formed as a tube having an outer peripheral surface and is provided with nozzle openings (col. 3, ll. 21-22). The mouth of the discharge nozzle for the fluid is axially displaced backwards with respect to the discharge for the air-powder mixture as

Art Unit: 3732

illustrated in fig. 2. Sierro further teaches the fluid discharge nozzle is disposed on one side, the outside, of the discharge nozzle for the air-powder mixture as illustrated in fig.

2. Sierro further teaches the fluid discharge nozzle is concentrically arranged to the discharge nozzle for the air-powder mixture as illustrated in fig. 2, the tube-shaped front partial length of the nozzle piece is made of plastic (col. 2, ll. 63-64), the front end of the tube is provided with an axial opening. Sierro does not specifically teach the nozzle openings are in the outer peripheral surface, the nozzle openings arranged in a common radial plane on the tube and spaced in regular or varying distances along the corresponding circumference of the tube, the nozzle openings are slot shaped, the longitudinal axis of the slot-shaped nozzle openings parallel to the main axis of the tube and one radial plane of the tube has at least three nozzle openings disposed along the corresponding circumference of the tube. Mabile teaches the openings are in the outer peripheral surface as illustrated in fig. 9, the nozzle openings arranged in a common radial plane on the tube and spaced in regular distances along the corresponding circumference of the tube as illustrated in figs. 6-7 (col. 6, ll. 1-4), the nozzle openings are slot shaped as illustrated in figs. 6-7, the longitudinal axis of the slot-shaped nozzle openings parallel to the main axis of the tube and two nozzle openings in one radial plane disposed along the corresponding circumference of the tube as illustrated in figs. 6-7 (col. 6, ll. 1-4). Malmin does not teach three nozzle openings disposed in a radial plane along the corresponding circumference of the tube. However, it has been held that that mere duplication of parts has no patentable significance unless a new and unexpected result is produced (*In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960))

MPEP 2144.04 VI. B.). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sierro in view of Malmin in order to more effectively scrub and remove dentinal debris as taught by Malmin (col. 4, ll. 31-37).

3. Claims 3, 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sierro et al. 6,837,709 (Sierro) in view of Malmin 4,276,880 further in view of Maita et al. 4,993,941 (Maita). Sierro in view of Malmin teach the invention as discussed above, including Sierro teaching the front end of the tube is provided with an axial opening, however, Sierro in view of Malmin does not teach the nozzle opening arranged in at least two different radial planes of the tube and the nozzle openings in one radial plane are twisted with respect to the nozzle openings in the other radial plane in the circumferential direction of the tube, the front end of the tube is closed, the tube-shaped front partial length of the nozzle piece having an arched shape ending at the nozzle openings of the discharge nozzle. Maita teaches the nozzle opening arranged in at least two different radial planes of the tube and the nozzle openings in one radial plane are twisted with respect to the nozzle openings in the other radial plane in the circumferential direction of the tube as illustrated in fig. 1, the front end of the tube is closed as illustrated in fig. 1, teaches the tube-shaped front partial length of the nozzle piece having an arched shape ending at the nozzle openings of the discharge nozzle as illustrated in fig. 2. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sierro in view of Malmin further in view of Maita in

order to dispense the cleaning solution in diverse directions (col. 2, ll. 40-44) and in order to adapt the nozzle to the area being cleaned as taught by Maita (col. 2, ll. 52-53).

4. Claims 18-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sierro et al. 6,837,709 (Sierro) in view of Malmin 4,276,880 further in view of Wiek et al. 2005/0175960 (Wiek). Sierro in view of Malmin does not teach a deflection body provided at the axial nozzle opening that is interchangeably mounted on the tube and the fluid discharge nozzle provided with a diffuser shaped outlet cross section. Wiek teaches a deflection body 25 provided at the axial nozzle opening as illustrated in fig. 2, the deflection body interchangeably mounted on the tube (par. 49) and the fluid discharge nozzle provided with a diffuser shaped outlet cross section 11 as illustrated in fig. 1. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sierro in view of Malmin further in view of Wiek in order to protect surrounding areas as taught by Wiek (par. 15) and in order to adapt the nozzle to the treatment sight as taught by Wiek (par. 15).

5. Claims 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sierro et al. 6,837,709 (Sierro) in view of Malmin 4,276,880 further in view of Heil 4,340,366. Sierro in view of Malmin teaches the invention as discussed above, however, does not specifically teach the nozzle piece having an oval cross section and the nozzle opening is asymmetrical. Heil teaches the nozzle piece having an oval cross section (col. 1, ll. 60-64) and the nozzle opening is asymmetrical with respect to the y-axis as

illustrated in fig. 8. It would have been obvious to one having ordinary skill in the art to modify Sierro in view of Malmin further in view of Heil in order to insure proper air/water intermixing as taught by Heil (col. 1, ll. 49-50).

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sierro et al. 6,837,709 (Sierro) in view Malmin 4,276,880 further in view of Linder 5,188,617.

Sierro in view of Malmin does not teach a scale provided on the tube shaped front partial length of the nozzle piece. Linder teaches a scale 19 on the tube shaped front partial length 17 of the nozzle piece 4. It would have been obvious to one having ordinary skill in the art to modify Sierro in view of Malmin further in view of Linder in order to measure a distance as taught by Linder (col. 3, l. 42).

7. Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sierro et al. 6,837,709 (Sierro) in view of Malmin 4,276,880 further in view of Bruns et al. 5,765,759 (Bruns). Sierro in view of Mabille does not teach the tube is composed of a single use product exchangeably mounted on the grip and the tube is held by a holding piece, which is rotatable relative to the grip. Burns teaches the tube 7 is composed of a single use product exchangeably mounted in the grip as illustrated in fig. 3 and the tube 7 is held by a holding piece 11, which is rotatable relative to the grip. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sierro in view of Mabille further in view of Burns in allow for easy

removal of the tube in the event the tube becomes clogged, damaged or worn as taught by Burns (col. 2, ll. 28-29).

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Eide

/John J Wilson/

Application/Control Number: 10/564,043

Page 8

Art Unit: 3732

Examiner
Art Unit 3732

Primary Examiner
Art Unit 3732

/Heidi M Eide/
Examiner, Art Unit 3732

3/16/2009